Please add the attached Abstract to the specification.

REMARKS

Claims 1-20 are in the application; new claims 18, 19, and 20 have been added with the instant amendment.

The Examiner objected to the Information Disclosure Statement because it did not include a concise explanation of the relevance as it is precisely understood by the individual designated in 37 C.F.R. 1.56(c) most knowledgable about the content of the information. The Examiner therefore placed the Information Disclosure Statement in the file, but did not consider it.

It is respectfully submitted that the Information Disclosure Statement was accompanied by a copy of the International Search Report showing the relevance of the references. Pursuant to MPEP 609, Rev. 1 of Feb. 2000, page 600-101, left column, 1st paragraph, "Where the information listed is not in the English language, but was cited in a search report or other action by a foreign patent office in a counterpart of the application, the

requirement for a concise explanation of relevance can be satisfied by submitting an English-language version of the search report or action which indicates the degree of relevance found by the foreign office. This may be an explanation of which portion of the reference is particularly relevant, to which claims it applies, or merely an "X", "Y", or "A" indication on the search report.". It is therefore respectfully requested that the Information Disclosure Statement be considered by the Examiner.

Reconsideration of the drawing objection with respect to the time measuring means and the adjusting means is respectfully requested.

A drawing proposal of the only Figure is submitted herewith accompanied by a proper letter to the Draftsperson. The time measuring means has now been schematically introduced into the drawing and is shown in red ink and identified by reference numeral 10. Since in a sunning or irradiation device the low-pressure tubes are always identical, in this situation the arrangement of time measuring means is sufficient. This time measuring means serves to realize the feature b) of claim 1. The respective individual operating period of a sunning or

irradiation process is measured by this time measuring means and is added to the previous individual operating periods. This makes it possible to measure the total operating duration of the to gas discharge lamp. The time measuring means are usually enclosed in the control device 1 but can also be located at a different location. The time measuring means 10 which in the amended drawing are shown in red ink must be actuated by the so-called reset switch 9 when exchanging the gas discharge lamps 3. This means that the time measuring means 10 are always reset to 0. Such time measuring means 10, independent of their location, are always present and control the increasing current strength for the supply of the gas discharge lamp so that the lamps always provide a substantially constant UV output power. Applicant would like to submit that the arrangement of the time measuring means, either within the control device or external thereto, for realizing the feature b) of claim 1 is obvious to any person skilled in the art and does not constitute new matter.

The time measuring means are mentioned in the claims but are not explicitly described in the text of the specification. Therefore, a short description has been added to the specification (page 6 of the amended sheets).

Contrary to examiners opinion, adjusting means are indeed illustrated in the drawing in the form of the so-called reset switch 9.

The Examiner requested an Abstract on a separate sheet pursuant to 37 C.F.R. 1.72(b). Please find enclosed a proper Abstract to be added to the specification.

Proper headings have been added to the specification as required by the specific guidelines set forth in MPEP 601.

Reconsideration and withdrawal of the rejection of claims 9-17 under 35 U.S.C. 112, 1st paragraph, is respectfully requested.

The Examiner points out that the time measuring means of claim 9 is not disclosed and that instead a sensor 7 is disclosed. Since the claims are part of the disclosure, a time measuring means is properly disclosed in the application. However, the Examiner is correct in that no detailed description is contained in the specification. This omission has been corrected by inserting a short description of the time measuring means on page 6 of the specification (amended sheets). The

description of the sensor 7 has been deleted from the specification since this embodiment is no longer claimed.

The Examiner further points out that the manually actuated adjusting means of claims 14-16 are not contained in the description. It is respectfully submitted that the adjusting means is indeed disclosed in the form of the reset switch 9.

Reconsideration and withdrawal of the rejection of claims 1, 3, and 9 under 35 U.S.C. 112, 2nd paragraph, is respectfully requested.

Claim 9 has been rewritten in independent form. In claims 1, 3, and 9 the phrase starting with "for example" has been deleted, respectively. The deleted phrases have been rewritten as dependent claims 18, 19, and 20, respectively.

Reconsideration and withdrawal of the rejection of claims 1, 2 and 9 under 35 U.S.C. 102(b) as being anticipated by Suga (US 4,831,564) is respectfully requested.

Before discussing the reference, Applicant would like to

submit the following. The original international application, upon which the present U.S. patent application is based, discloses an embodiment that was originally claimed in original claim 2. This embodiment as claimed in original claim 2 refers to a conventional control wherein the control circuit comprises the sensor 7 and the unit 8. This embodiment is no longer claimed. Therefore, the respective text portion (page 6, 2nd paragraph) has now also been canceled from the specification. Also, the parts of the drawing showing the elements of this embodiment have been canceled as indicated in red ink in the drawing proposal.

Applicant believes that the references cited against the application have been applied because of the disclosure of the now canceled control circuit with sensor 7 and unit 8. However, the invention as now claimed refers to a method with the features a) through c) of claim 1 and the features of claim 9, including time measuring means, which have nothing to do with the sensor 7 and unit 8.

According to the method of the invention, characteristic data for the individual lighting means, i.e., conventional

commercially available gas discharge lamps, are stored in the control device. These characteristic data describe the decrease of the light output or radiation output depending on the operating duration of the lighting means. The characteristic data corresponding to the currently used gas discharge lamp 3 are used to control the electronic ballast devices 5a through 5e in cooperation with the time measuring means. As a function of the characteristic data of the lamp in use and based on the operating duration measured by the time measuring means, the strength of the current supplied to the gas discharge lamp is increased as the output decreases over time so that always a substantially constant light or radiation output is provided.

The circuit arrangement according to the invention has electric or electronic controlling means with a storage for characteristic data of the gas discharge lamp that is located in the circuit of the gas discharge lamp for adjusting the electric power to be supplied to the gas discharge lamp for the purpose of obtaining a predetermined light output or radiation output of the gas discharge lamp. The circuit arrangement further has time-measuring means measuring the total operating duration of the gas discharge lamp. The time-measuring means are associated with the

gas discharge lamp and are electrically connected with the above-mentioned controlling means. The controlling means adjusts, based on the measured total operating duration and the characteristic data of the gas discharge lamp, the electric output to be supplied to the gas discharge lamp.

U.S. patent 4,831,564 (Suga) discloses a device for monitoring and displaying the cumulative operating time as well as the remainder of the service life of xenon lamps. For this purpose, already used xenon lamps are inserted into a housing and the light or radiation output of the xenon lamps is tested by a sensor. A decrease of the light output or radiation output of the xenon lamp is detected by the sensor which then controls a control device to increase the power to be supplied to the xenon lamp so that the xenon lamp always provides a constant light or radiation output. Accordingly, this reference shows a sensor control for the increase of the power to be supplied to the lamp. The determined discharge power values for maintaining the light output are saved and correlated to the hours of use. For each lamp it is then possible to determine the remaining service life based on the required discharge power for maintaining the required light output.

This reference therefore does not show a method and a circuit arrangement where the total operating duration is measured by time measuring means during use and the power supply to the lamp is then controlled based on the total measured operating duration and the characteristic data of the lamp. In the cited prior art the power supply is controlled by a sensor.

Reconsideration and withdrawal of the rejection of claims 4-8, 10-13, and 17 under 35 U.S.C. 103(a) as being unpatentable over Suga (US 4,831,564) in view of Bernitz et al. (US 5,680,015) is respectfully requested.

According to US 5,680,015, the remaining lifetime or the aging of the lamp is determined before it is operated. This reference also does not show a method and a circuit arrangement where the operating duration is measured by time measuring means during use and the power supply to the lamp is then controlled based on the measured total operating time and the characteristic data of the lamp. The claims 4-8, 10-13, and 17 should therefore be allowable as dependent claims of claims 1 and 9, respectively.

Reconsideration and withdrawal of the rejection of claims

14-16 under 35 U.S.C. 103(a) as being unpatentable over Suga (US 4,831,564) in view of Bernitz et al. (US 5,680,015) and further in view of Donohoe (US 5,274,611) is respectfully requested.

According to U.S. patent 5,247,611, a device is described and disclosed with which the lifetime of a lamp as a function of the length of the individual operating periods are determined. The individual periods of operation are weighted according to the their respective lengths under the premise that the service life is not a linear function of the accumulated time of use. This reference also does not disclose a method and circuit arrangement where the operating duration is measured by time measuring means during use and the power supply to the lamp is then controlled based on the measured total operating time and the characteristic data of the lamp. The claims 14-16 should therefore be allowable as dependent claims of claim 9.

In summarizing the above, the present invention does not have a testing device or the like. The present invention relates instead to a method for operating an electric gas discharge lamp, for example, a UV low-pressure lamp, in the context of artificial sunning or radiation devices. According to the invention, the

typical data of commercially available gas discharge lamps with respect to the decrease of light or radiation output are saved as a function of the total operating duration. These data are saved within the control device 1. The saved data reflect which current output is required according to the operating duration of a specific gas discharge lamp in order to be able to maintain over the entire service life of the gas discharge lamp a constant, or approximately constant, light or radiation output. As a function of the individual operating duration which is measured and added by the time measuring means 10, the electric power supplied to the lamp is increased accordingly. Such measures are not disclosed or suggested by the cited references, alone or in combination.

Therefore, in view of the foregoing, it is submitted that this application is now in condition for allowance and such allowance is respectfully solicited.

Any additional fees or charges required at this time in connection with the application may be charged to Patent and Trademark Office Deposit Account No. 11-1835.

Respectfully submitted,

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Dated: July 25, 2000

Encl.: Letter to the Draftsperson with drawing proposal/Abstract

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on July 25, 2000.

By: _____ Date: July 25, 2000
Friedrich Kueffner